



Missouri
Department of
Natural Resources

Missouri Department of Natural Resources
Regulatory Impact Report
For
Proposed New Rule 10 CSR 10-5.381

Division/Program Division of Environmental Quality/Air Pollution Control Program

Rule number 10 CSR 10 5-5.381 Rule title On-Board Diagnostics Motor Vehicle Emissions Inspection

Type of rule: New Rule

Nature of the rule: Sets environmental conditions or limits and affects small businesses

Submitted by

Program Director

Date

Approval of the Completed Regulatory Impact Report

Legal Counsel

Date

Division Director

Date

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Applicability: Pursuant to Section 640.015 RSMo, “all rulemakings that prescribe environmental conditions or standards promulgated by the Department of Natural Resources...shall... be based on the regulatory impact report....” This requirement shall not apply to emergency rulemakings pursuant to section 536.025 or to rules of other applicable federal agencies adopted by the Department “without variance.”

The Missouri Department of Natural Resources has determined this rulemaking prescribes environmental conditions or standards and verifies that this rulemaking is not a simple unvarying adoption of rules from other federal agencies. Accordingly, the Department has produced this regulatory impact report which will be made publicly available for comment for a period of at least 60 days. Upon completion of the comment period, official responses will be developed and made available on the agency web page prior to filing the proposed rulemaking with the Secretary of State. Contact information is at the end of this regulatory impact report.

1. Describe the environmental conditions or standards being prescribed.

Section 643.303, RSMo became effective August 28, 2006 and requires the Missouri Air Conservation Commission (the Commission) to replace the current centralized vehicle emissions program with a decentralized on-board diagnostics (OBD) vehicle emissions program on September 1, 2007. This new program will test 1996 and newer vehicles with the OBD test and eliminate 1995 and older vehicles from tailpipe emissions testing. Independently owned businesses in the St. Louis ozone nonattainment area will be licensed to conduct the OBD emissions testing. Vehicles registered in Franklin County will be tested using the same emissions test as vehicles registered in St. Louis City, St. Charles, St. Louis and Jefferson Counties.

This proposed rulemaking sets new environmental conditions or limits for 1997 light duty diesel powered vehicles registered in the St. Louis ozone nonattainment area and for 1996 and newer light duty gasoline powered vehicles registered in Franklin County. These vehicles will be tested with the OBD test and be required to be repaired if they fail the OBD test beginning September 1, 2007.

2. A report on the peer-reviewed scientific data used to commence the rulemaking process.

The East-West Gateway Council of Governments hosted an Inspection/Maintenance (I/M) Summit in St. Louis during the summer of 2005 which led to the drafting of Senate Bill 583 (SB 583). The following agencies or groups participated in the I/M Summit: the U.S.Environmental Protection Agency (EPA), the Department of Natural Resources, the Missouri State Highway Patrol (MSHP), St. Louis City, St. Louis County, St. Charles County, St. Louis Municipal League, Regional Chamber and Growth Association, Alliance of Automotive Service Professionals of Missouri, St. Louis Community College at Forest Park, Design Technology, Sun Auto, American Automobile Association of Missouri, American Lung Association of Missouri, Missouri Coalition for the Environment, State Senators and State Representatives. At the conclusion of the I/M

Summit, the department published a white paper that summarized the consensus opinions of the stakeholders. SB 583 became state law August 28, 2006 (643.303, RSMo). This new law is consistent with the consensus reached by the I/M Summit participants and this rulemaking will meet the requirements of the new law.

3. A description of the persons who will most likely be affected by the proposed rule, including persons that will bear the costs of the proposed rule and persons that will benefit from the proposed rule.

Owners of 1996 and newer model year gasoline-powered passenger vehicles and trucks and 1997 and newer diesel-powered passenger vehicles and trucks in the St. Louis nonattainment area are affected by this rulemaking. Owners and employees of small businesses involved in vehicle emissions testing and repairs in the St. Louis ozone nonattainment area are also affected by this rulemaking.

4. A description of the environmental and economic costs and benefits of the proposed rule.

This proposed rulemaking requires the creation of a decentralized emissions I/M program based on OBD testing to replace the present centralized I/M program. The decentralized I/M program will reduce ozone-forming emissions from light-duty passenger vehicles in the St. Louis nonattainment area by accurately identifying vehicles with emissions-related problems and requiring vehicle owners to repair these vehicles before they are reregistered.

The decentralized I/M program will be more convenient for affected motorists because they can choose to have their vehicle inspected for safety and emissions at one facility, and because there will be more inspection facilities for motorists to choose from as compared to the current centralized I/M program. Owners of repaired vehicles will benefit from reduced vehicle maintenance costs, improved vehicle reliability and fuel economy. All St. Louis area citizens will benefit from reduced exposure to high concentrations of ground-level ozone because vehicle pollution will be reduced.

The financial impact that this rulemaking will have on vehicle repair businesses meeting the definition of a small business depends on several factors, including whether these businesses presently conduct vehicle emissions repairs on 1995 and older vehicles, whether these businesses choose to apply for and maintain their emissions inspection license, whether these businesses purchase, rent, or lease the equipment necessary to conduct emissions inspections, and whether these businesses see an increase or a decrease in their revenue from emissions-related vehicle inspections and/or repairs once the decentralized vehicle emissions inspection program is implemented.

Section 643.303, RSMo and this rulemaking will exempt vehicles of model years 1995 and older from tailpipe emissions testing. Because there will be fewer vehicles subject to the biennial \$24 emissions inspection fee as compared to the current emissions I/M program, the total amount of decentralized emissions I/M revenue will be reduced from the current emissions I/M program. Additionally, this revenue source will be divided between all licensed emissions inspection stations, so the greater the number of licensed emissions inspection stations, the greater the division of this total I/M revenue, and the less revenue any one licensed emissions inspection station will receive.

This rulemaking provides small businesses the option to become licensed to perform emissions test or to employ recognized repair technicians. It is assumed that the majority of the small businesses who will be licensed to perform emissions inspections or who will employ recognized repair technicians, will be currently licensed safety inspection stations. However, St. Louis area vehicle repair facilities will have increased costs if they choose to become licensed to conduct emissions inspections or if they choose to employ recognized repair technicians. Costs may include annual emissions licensing fees, purchases or rental/leasing costs of testing equipment, hardware or software upgrades, equipment maintenance/replacement, and employee training costs.

5. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenue.

With a decentralized network of test stations, the number of facilities to audit increases from 12 fixed stations to potentially hundreds of stations. Therefore the need for adequate resources to conduct enforcement may be greater than that of the current centralized I/M program. The department may need to lease or rent space outside of the St. Louis Regional Office to locate customer service, overt and/or covert oversight staff, space that may be shared with the MSHP. The estimated cost of leased/rental space is unknown at this time. This unknown cost would be paid out of the vehicle emissions inspection fees remitted by the inspection stations to the state. The commission will establish the state's portion of the \$24.00 per vehicle statutory cap.

The MSHP may have its own costs associated with licensing and auditing of inspectors and enforcement measures. There is no way to accurately predict how many small businesses will be licensed to perform emissions inspections at this time, because each small business will have to choose to participate based upon financial and other factors that are not quantifiable by the department. However, assuming that the maximum number of small businesses chose to apply for and receive an emissions inspection license, the estimated number of licensed emissions inspection stations would be 1,100, the same as the number of licensed safety inspection stations in the St. Louis ozone nonattainment area.

There may also be cost to the Department of Revenue (DOR) or the contract license offices to develop and implement electronic verification of both safety and emissions inspection records. The costs of this electronic verification system are unknown.

By exempting 1981-1995 model year vehicles as required by 643.303 RSMo, the number of vehicles that undergo biennial emissions testing will decrease by approximately 308,764 (based on July 1, 2005 to June 30, 2006 emissions inspection records). Assuming the department would have received the same \$2.50 for the 284,854 vehicles inspected at a St. Louis City or St. Louis, St. Charles, and Jefferson County test station or inspected through the remote-sensing component of the program, and \$0.75 for the 23,910 vehicles inspected in Franklin County if the current I/M program had continued, the loss of revenue to the department would be \$730,068 during the first two years.

By exempting the first four model years if the odometer has fewer than 40,000 miles at the first two-year safety inspection interval the number of vehicles that undergo emissions testing will decrease by a maximum of 243,682 if all two-year old vehicles qualify for this exemption (based on July 1, 2005 to June 30, 2006 emissions inspection

records). Assuming the department would have received the same \$2.50 for the 229,070 two-year old vehicles inspected at a St. Louis City or St. Louis, St. Charles, and Jefferson County test station or inspected through the remote-sensing component of the program, and \$0.75 for the 14,612 two-year old vehicles inspected in Franklin County if the current I/M program had continued, the loss of revenue to the department would be \$583,634 during the first two years.

This revenue loss will be reduced slightly by the new revenue from 1997 and newer diesel-powered vehicles, which are presently exempt. Based upon DOR registration data, there are 7,831 diesel-powered vehicles that are between the 1997 and 2002 model years. Assuming the department receives \$2.50 for the emissions tests of these diesel-powered vehicles, the increased revenue to the department's Air Pollution Control Program would be \$19,578 during the first two years.

6. A comparison of the probable costs and benefits of the proposed rule to the probable costs and benefits of inaction, which includes both economic and environmental costs and benefits.

Inaction would mean the department has violated the state law 643.303, RSMo. The costs of inaction could involve EPA finding the state in violation of the I/M portion of the State Implementation Plan (SIP), because the state must have legal authority to implement a vehicle emissions I/M program. If EPA does make this finding, then they could begin an 18-month sanctions clock that would require emissions offsets for regulated businesses in the nonattainment area and six months later suspend federal highway funding for projects in the nonattainment area.

7. A determination of whether there are less costly or less intrusive methods for achieving the proposed rule.

OBD is the latest technology available for vehicle emissions control and the least intrusive, most cost-effective testing method available to date because it is both more comprehensive and quicker than tailpipe emissions testing methods. Because EPA requires all 1996 and newer light-duty gasoline-powered and all 1997 and newer light-duty diesel-powered vehicles to have OBD systems installed by the manufacturers and requires states to use the OBD test to test these vehicles, there are no less costly or less intrusive methods to achieve the proposed rule.

8. A description of any alternative method for achieving the purpose of the proposed rule that were seriously considered by the department and the reasons why they were rejected in favor of the proposed rule.

There are no alternative methods for achieving the purpose of the proposed rule. Section 643.303, RSMo mandates that this rule require OBD motor vehicle emissions testing be conducted at licensed decentralized test stations. Additionally, because the St. Louis area is classified by the EPA as a moderate ground-level ozone non-attainment area, the State of Missouri is required to have a SIP in place that includes a motor vehicle emissions I/M program. EPA also requires states to use the OBD test method on all 1996 and newer vehicles in federally-required I/M programs.

9. An analysis of both short-term and long-term consequences of the proposed rule.

In the short term, this proposed rulemaking will increase ozone-forming pollution from St. Louis area vehicles because 1995 and older model year vehicles will no longer be subject to an emissions test. The department estimates that volatile organic compound (VOC) and oxides of nitrogen (NOx) emissions rates from the St. Louis fleet will increase by approximately 5 tons per day in the short term (first two years).

In the long term, this proposed rulemaking will decrease ozone-forming pollution from St. Louis area vehicles because 1995 and older model year vehicles will become a smaller and smaller portion of the St. Louis fleet. As older vehicles are replaced with newer vehicles, the newer vehicles will be required to be inspected and will be considerably cleaner than the older vehicles being replaced. Therefore, the ozone-forming pollution from 1995 and older vehicles will diminish, and the reductions from the 1996 and newer model year vehicles will continue to lower the rates of VOC and NOx emissions from the St. Louis fleet.

10. An explanation of the risks to human health, public welfare or the environment addressed by the proposed rule.

Ground-level ozone is a strong lung irritant and affects the lung function of everyone, especially the young, the elderly and those with respiratory illnesses such as asthma, emphysema, and bronchitis.

Vehicle emissions are a major contributor to ground-level ozone. By continuing to test 1996 and newer gasoline-powered vehicles and by beginning to test 1997 and newer diesel-powered vehicles with the OBD test, section 643.303, RSMo and this proposed rulemaking decrease the risk of the St. Louis area not attaining the eight-hour ground-level ozone standard by June 2010. By attaining this standard in the timeframe allowed by the EPA, human health, public welfare and the environment will be protected.

11. The identification of the sources of scientific information used in evaluating the risk and a summary of such information

The MOBILE model provided by the EPA was used to model the affects of 643.303, RSMo and this proposed rulemaking. The results of this modeling indicate that VOC and NOx emissions rates from the St. Louis fleet will increase by approximately 5 tons per day in the short term (first two years) and by approximately 3 tons per day in the long term (first four years).

These estimated emissions increases from the St. Louis fleet of vehicles will be balanced out by reductions from federally-required controls on stationary and mobile sources that are being phased in through 2010. The CAMX photochemical ozone model was used to simulate ground-level ozone concentrations for three separate ozone episodes in 2009. Using the existing control strategies already in place and including the additional federally-required controls, the draft results of this modeling indicate that the St. Louis area will likely attain the eight-hour ozone standard by June 2010.

12. A description and impact statement of any uncertainties and assumptions made in conducting the analysis on the resulting risk estimate.

All air quality models include built in uncertainties and assumptions. To compensate for these uncertainties and assumptions, a decentralized I/M program meeting the Basic I/M Performance Standard established by EPA was modeled in the CAMX photochemical model. This Basic I/M Performance Standard has a MOBILE model result that is less protective of human health (higher emissions rates from the St. Louis fleet) than the MOBILE model result of the I/M program in this proposed rulemaking (lower emissions rates from the St. Louis fleet).

Using the less-stringent I/M program in the CAMX model than the I/M program that is proposed by this rulemaking, the CAMX model still showed that the St. Louis area could attain the eight-hour ozone standard. Therefore, if the I/M program in this proposed rulemaking is more protective of human health than the I/M program used in the CAMX model, then the St. Louis area should attain the eight-hour ozone standard by implementing the I/M program in this proposed rulemaking.

13. A description of any significant countervailing risks that may be caused by the proposed rule

There are no countervailing risks that may be caused by the proposed rulemaking.

14. The identification of at least one, if any, alternative regulatory approaches that will produce comparable human health, public welfare or environmental outcomes.

There are no alternative regulatory approaches that will produce comparable human health, public welfare or environmental outcomes.

15. Provide information on how to provide comments on the Regulatory Impact Report during the 60-day period before the proposed rule is filed with the Secretary of State.

Formal comments can be provided on either the Regulatory Impact Report or the draft rule text by sending them to the contact listed below.

Questions and/or comments can be sent to:

Chief, Operations Section
Missouri Department of Natural Resources' Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176

or

Missouri Air Conservation Commission
P.O. Box 176
Jefferson City, MO 65102-0176

or call: (573) 751-4817

16. Provide information on how to request a copy of comments or the web information where the comments will be located.

Copies of formal comments made on either the Regulatory Impact Report or the draft rule text may be obtained by request from the contact listed above or by accessing the Rules In Development section at Web site <http://www.dnr.mo.gov/env/apcp/> for this particular rulemaking.